

S/N: 09/412,618

PATENT
P-2070-US**VERSION WITH MARKINGS TO SHOW CHANGES MADE****IN THE CLAIMS**

1. (Once Amended) A method for three-dimensional printing of a three-dimensional model, said method comprising:
 - dispensing a first interface material from a printing head, said first interface material having a first modulus of elasticity;
 - dispensing at least a second interface material from said printing head, said second interface material having a second modulus of elasticity, said second modulus of elasticity being different from said first modulus of elasticity; and
 - combining said first interface material and said second interface material in pre-determined proportions to produce construction layers for forming the three-dimensional model.
3. (Once Amended) The method according to claim 1, further comprising the step of:
 - curing said first interface material for a first period of time and at a first radiation wavelength to obtain [a] said first modulus of elasticity.
4. (Once Amended) The method according to claim 1, further comprising the step of:
 - curing said second interface material for a second period of time and at a second radiation wavelength to obtain [a] said second modulus of elasticity.
5. (Once Amended) The method according to claim 1, wherein said step of combining includes the step of:
 - adjusting the relative proportions of said first and second interface materials thereby to produce a material having a third modulus of elasticity, [said first and second interface materials having different modulus of elasticity].

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13. (Once Amended) A system for three-dimensional printing of a three-dimensional model, comprising:

at least one printing head, having a plurality of nozzles;

at least first and second dispensers connected to said at least one printing head for dispensing at least first and second interface materials respectively, said first and second interface materials having first and second modulus of elasticity, respectively said second modulus of elasticity being different from said first modulus of elasticity; and

control means connected to said at least one printing head for combining at least said interface material first and said second interface material in pre-determined proportions to produce layers for forming the three-dimensional model.

15. (Once Amended) The system according to claim 14 wherein said curing means includes:

a first curing means for curing said first interface material for a first period of time and at a first radiation wavelength to obtain said first modulus of elasticity; and

a second curing means for curing said second interface material for a second period of time and at a second radiation wavelength to obtain said second modulus of elasticity.

23. (Once Amended) A system for three-dimensional four-color printing of a three-dimensional model, comprising:

at least one printing head, having a plurality of nozzles;

a plurality of dispensers connected to said at least one printing head for dispensing a plurality of interface materials; and

control means connected to said at least one printing head for combining said plurality of interface materials in pre-determined proportions to produce layers having different colors for forming the three-dimensional model.

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wherein each of said plurality of interface materials has a different
modulus of elasticity.